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Remarks:

Amendments to the claims:

Claims 18-28 are pending in this application. By this Amendment, the specification and claims 18-28 are amended. Claims 18 and 22 are amended to address claim objections; claim 20 is amended to overcome a rejection under 35 USC 112; and claims 19-28 are amended for dependency.

No new matter is added to the application by this Amendment.

Regarding the objection to the Specification for alleged informalities:

The disclosure was objected to for alleged informalities. This objection is respectfully traversed.

Specifically, the specification was objected to for having a title that is allegedly not descriptive and clearly indicative of the invention to which the claims are directed. In this paper, the title of the invention is amended to recite "Air treatment device" as suggested by the Patent Office. Thus, Applicants respectfully request withdrawal of the specification objection.

Regarding the objection of claims 18 and 22 for alleged informalities:

Claims 18 and 22 were objected to for informalities for allegedly containing typographical errors therein. Claims 18 and 22 are amended to correct the typographical errors therein. Accordingly, withdrawal of the claim objection is respectfully requested.

Regarding the rejection of claim 20 under 35 USC 112, second paragraph:

The Patent Office alleges that claim 20 fails to provide sufficient antecedent basis for the feature "the heater elements" therein. Applicants respectfully disagree.

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Claim 20 is amended in order to replace the phrase "the heater elements" with the phrase "the heater element." In light of the amendments to claim 20, Applicants submit that the rejection under 35 USC 112, second paragraph, is overcome. Accordingly, withdrawal of the claim objection is respectfully requested.

Regarding the rejection of claims 18, 21, 22 and 25-28 under 35 USC 102(b) as allegedly being anticipated by JP 2001-087370 to Horikiri (hereinafter "JP 370"):

The Applicants respectfully traverse the rejection of the foregoing claims in view of JP 370.

Prior to discussing the relative merits of the Patent Office's rejection, Applicants point out that unpatentability based on "anticipation" type rejection under 35 USC 102(b) requires that the invention is not in fact new. See *Hoover Group, Inc. v. Custom Metalcraft, Inc.*, 66 F.3d 299, 302, 36 USPQ2d 1101, 1103 (Fed. Cir. 1995) ("lack of novelty (often called 'anticipation') requires that the same invention, including each element and limitation of the claims, was known or used by others before it was invented by the patentee"). Anticipation requires that a *single reference* [emphasis added] describe the claimed invention with sufficient precision and detail to establish that the subject matter existed in the prior art. See, *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

The Patent Office alleges that JP 370 teaches each and every feature recited in claims 18, 21, 22 and 25-28. Applicants respectfully disagree with these allegations.

The Patent Office alleges that sensors 6a, 6b and paragraph [0031] of JP 370 discloses a gas or vapor detector comprising a plurality of gas or vapor sensors and at least two sensors which sense the same gas or vapor when an odor is comprised of both acidic and alkaline components. Contrary to these allegations, JP 370 fails to disclose at least two sensors which sense the same gas or vapor as alleged by the Patent Office.

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Instead, paragraph [0031] of JP 370 merely discloses detection of an acid or alkali odor and treatment of the acid or alkali odor with a deodorant. Moreover, JP 370 discloses that when an acid and an alkali component is detected both corresponding deodorants can be selected. However, there is no disclosure in JP 370 of a single odor component having both acid and alkali characteristics and thus being detectable by both the acidic sensor and the alkali sensor. Therefore, Horikiri does not disclose "at least two sensors which sense the same gas or vapor" as required by claim 18.

Additionally, the Patent Office alleges that a gas or vapor detector that comprises means to detect a threshold level or concentration of a gas or vapor is disclosed in paragraphs [0010] and [0011] of JP 370. This feature of claim 18 may prevent the device from triggering needlessly when only low levels of airborne odors are present, as described in paragraph [0009] of the U.S. Patent Publication 2006/0210421 for present application.

However, contrary to the Patent Office's allegations, there is no disclosure whatsoever of only spraying deodorant after a threshold level of odor is detected within the teachings of JP 370. With that said, paragraphs [0010] and [0011] of JP 370, at best, disclose that when an acid or an alkali odor component is detected by the corresponding sensor, the corresponding deodorant is sprayed. Thus, JP 370 does not disclose a gas or vapor detector that comprises a threshold level or concentration of a gas or vapor as specifically defined in claim 18.

Further, the Patent Office alleges that sensors 6a, 6b, deodorants 10a, 10b and paragraphs [0023] and [0034] of JP 370 disclose that a processor unit which receives signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled.

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Contrary to the allegations of the Patent Office, JP 370 merely discloses that the sensors 6a, 6b are electrically connected to the spray means 7a, 7b. Nowhere does JP 370 disclose that the device will only spray once signals from both sensors are received by the processor unit. Thus, JP 370 does not disclose a process unit that must receive signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as recited in claim 18.

Therefore, JP 370 fails to disclose the at least two sensors that sense the same gas or vapor, and means to detect a threshold level or concentration of a gas or vapor, where a processor unit must receive signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as required by claim 18.

With respect to claim 22, the Patent Office alleges that paragraph [0034] of JP 370 discloses a detector including three or more sensors. Paragraph [0034] of JP 370 may disclose three or more sensors. However, JP 370 fails to disclose using the sensors for non-target gas or vapor as specifically defined in claim 22.

The principle of "inherency," in the law of anticipation, requires that any information missing from the reference would nonetheless be known to be present in the subject matter of the reference, when viewed by persons experienced in the field of the invention. However, "anticipation by inherent disclosure is appropriate only when the reference discloses prior art that must necessarily include the unstated limitation, [or the reference] cannot inherently anticipate the claims." *Transclean Corp. v. Bridgewood Servs., Inc.*, 290 F.3d 1364, 1373 [62 USPQ2d 1865] (Fed. Cir. 2002); *Hitzeman v. Rutter*, 243 F.3d 1345, 1355 [58 USPQ2d 1161] (Fed. Cir. 2001) ("consistent with the law of anticipation, an inherent property must necessarily be present in the invention described by the count, and it must be so recognized by persons of ordinary skill in the art"); *In re Robertson*, 169 F.3d 743, 745 [49 USPQ2d 1949] (Fed. Cir. 1999) (that a

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feature in the prior art reference "could" operate as claimed does not establish inherency).

Thus when a claim limitation is not explicitly set forth in a reference, evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *Continental Can Co.*, 948 F.2d at 1268. It is not sufficient if a material element or limitation is "merely probably or possibly present" in the prior art. *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 [63 USPQ2d 1597] (Fed. Cir. 2002). See also, *W.L. Gore v. Garlock, Inc.*, 721 F.2d at 1554 (Fed. Cir. 1983) (anticipation "cannot be predicated on mere conjecture respecting the characteristics of products that might result from the practice of processes disclosed in references"); *In re Oelrich*, 666 F.2d 578, 581 [212 USPQ 323] (CCPA 1982) (to anticipate, the asserted inherent function must be present in the prior art).

It is believed that the Patent Office has not properly made its case that the currently claimed invention is properly rejected as being anticipated under 35 USC 102(b) by JP 370. Accordingly, reconsideration of the propriety of this rejection and its withdrawal is solicited.

Regarding the rejection of claim 19 under 35 USC 103(a) as being unpatentable over JP 370 in view of US 4,084,732 to Dearling or US 5,364,027 to Kuhn:

The Applicants respectfully traverse the rejection of the foregoing claims in view of JP 370 in view of Dearling or Kuhn.

Dearling and/or Kuhn does not remedy the deficiencies of JP 370 as described above with respect to claim 18, from which claim 19 depends because Dearling and Kuhn fail to teach or suggest at least two sensor which senses the same gas or vapor, means to detect a threshold level or concentration of a gas or vapor, where a processor unit must receive

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signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as recited in claim 18.

Instead, Dearling teaches a plunger element frictionally engages the outlet member and includes a fluid access port therein terminating in a spray outlet to direct the liquid discharged from container in the form of a spray mist (see col. 2, lines 45-50 of Dearling). Moreover, Dearling teaches that the plunger element is adapted to be downwardly depressed and either opens the valve when container is an aerosol to permit passage of the liquid under pressure through outlet member and spray port or, when the container is not an aerosol, the plunger element 18 may be repeatedly depressed to discharge liquid from container as a spray mist as well (see col. 2, lines 50-56 of Dearling).

Moreover, Kuhn merely teaches a container having an active-substance containing liquid that is absorbed continuously via the wick and enabled to evaporate in the evaporation space communicating with the atmosphere (see col. 1, lines 40-43 of Kuhn). Kuhn also teaches that by squeezing the container, a large quantity of liquid can instantly be discharged via the spray nozzle (see col. 1, lines 43-45 of Kuhn).

Thus, none of JP 370, Dearling and Kuhn, taken singly or in combination, teaches or suggests a plurality of gas or vapor sensors and at least two sensors which sense the same gas or vapor, the gas or vapor detector comprising means to detect a threshold level or concentration of a gas or vapor, a means to mount a source of air treatment agent to the device, where a processor unit must receive signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as required by claim 18

In view of the foregoing, reconsideration and withdrawal of this rejection are respectfully requested.

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Regarding the rejection of claims 20 and 23 under 35 USC 103(a) as being unpatentable over JP 370 in view of US Publication 2004/0033171 to Kvietok et al (hereinafter "Kvietok"):

The Applicants respectfully traverse the rejection of the foregoing claims in view of JP 370 in view of Kvietok.

Kvietok does not remedy the deficiencies of JP 370 as described above with respect to claim 18, from which claim 20 and 23 depend because Kvietok fails to teach or suggest at least two sensors which sense the same gas or vapor, means to detect a threshold level or concentration of a gas or vapor, where a processor unit must receive signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as recited in claim 18.

Instead, Kvietok teaches a device that contains a first volatile composition and a second volatile composition alternately emitted during periods that are, for example, greater than 15 minutes and less than 2 hours (see the Abstract of Kvietok). Moreover, Kvietok teaches a device that can have a pre-selected emission program which is already programmed when a consumer buys the device, or the device can be provided with a selection of several emission programs and the consumer can select between these programs (see paragraph [0037] of Kvietok).

Thus, neither JP 370 nor Kvietok, taken singly or in combination, teaches or suggests a plurality of gas or vapor sensors and at least two sensors which sense the same gas or vapor, the gas or vapor detector comprising means to detect a threshold level or concentration of a gas or vapor, a means to mount a source of air treatment agent to the device, where a processor unit must receive signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as required by claim 18

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In view of the foregoing, reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejections of claim 23 under 35 USC 103(a) as being unpatentable over JP 370 in view of US 5,735,918 to Barradas:

The Applicants respectfully traverse the rejection of the foregoing claims in view of JP 370 in view of Barradas.

Barradas does not remedy the deficiencies of JP 370 as described above with respect to claim 18, from which claim 23 depends. Barradas does not teach or suggest at least two sensors which sense the same gas or vapor, means to detect a threshold level or concentration of a gas or vapor, where a processor unit must receive signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as recited in claim 18.

Instead, Barradas teaches an automatically operating air filter and air freshener device which can be mounted on a wall or is self supporting, and in which the motor fan unit is located in front of the filters and part of the air flow is directed to pass through a scent element, while the remainder of the air flow passes through an exit opening in the rear of the device spaced from the wall (see the Abstract of Barradas). Further, Barradas teaches a light sensor, a motion sensor which becomes activated upon movement of an individual in the vicinity of the device and a delay timer which can be selectively used to continue the activation of the air treatment device after an individual has left the room or the immediate vicinity (see col. 1, lines 52-59 of Barradas).

Therefore, neither JP 370 nor Barradas, taken singly or in combination, teaches or suggests a plurality of gas or vapor sensors and at least two sensors which sense the same gas or vapor, the gas or vapor detector comprising means to detect a threshold level or concentration of a gas or vapor, a means to mount a source of air treatment agent to the

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device, where a processor unit must receive signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as required by claim 18

In view of the foregoing, reconsideration and withdrawal of this rejection are respectfully requested.

Regarding the rejections of claim 24 under 35 USC 103(a) as being unpatentable over JP 370 in view of US 6,418,783 to Sunshine et al. (hereinafter "Sunshine"):

The Applicants respectfully traverse the rejection of the foregoing claims in view of JP 370 in view of Sunshine.

Sunshine does not remedy the deficiencies of JP 370 as described above with respect to claim 18, from which claim 24 depends because Sunshine does not teach or suggest at least two sensors which sense the same gas or vapor, means to detect a threshold level or concentration of a gas or vapor, where a processor unit must receive signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as recited in claim 18.

Instead, Sunshine et al. teaches chemically sensitive resistors that can each be connected in series with a reference resistor, between a reference voltage and ground, such that an analog signal is established for each chemically sensitive resistor (see the Abstract of Sunshine). The resulting analog signals of Sunshine are supplied to an analog-to-digital converter (hereinafter "ADC"), to produce corresponding digital signals which are appropriately analyzed for vapor identification. Sunshine teaches that an analyzer is coupled to the ADC and determines, based on the digital signal, the identity or concentration of the analyte(s) within the sample chamber (see col. 3, lines 41-46 of Sunshine).

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Thus, neither JP 370 nor Sunshine, taken singly or in combination, teaches or suggests a plurality of gas or vapor sensors and at least two sensors which sense the same gas or vapor, the gas or vapor detector comprising means to detect a threshold level or concentration of a gas or vapor, a means to mount a source of air treatment agent to the device, where a processor unit must receive signals from at least both sensors in order to cause a portion of airborne treatment agent to be expelled as required by claim 18

In view of the foregoing, reconsideration and withdrawal of this rejection are respectfully requested.

Should the Examiner in charge of this application believe that telephonic communication with the undersigned would meaningfully advance the prosecution of this application, they are invited to call the undersigned at their earliest convenience. The early issuance of a *Notice of Allowability* is solicited.

CONDITIONAL AUTHORIZATION FOR FEES

Should any further fee be required by the Commissioner in order to permit the timely entry of this paper, the Commissioner is authorized to charge any such fee to Deposit Account No. 14-1263.